The Pennsylvania State University at Harrisburg School of Business Administration Capital College

HOW DEMOGRAPHICS IMPACT VOTER PREFERENCE

A Master's Paper

by Divyanshi Trakroo

© 2021 Divyanshi Trakroo

Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Science in Information Systems

ABSTRACT

The purpose of the study s to analyze the election years of 2012 and 2016 for the state of Pennsylvania to observe the effect of county-level demographics on voting behavior.

Pennsylvania is a swing state that has been one of the vital election result contributors. I proposed that the years of 2012 and 2016 were of importance due to the racial and gender diversity present in the candidature. The objective of the study was to analyze these years considering the voter's race and gender. Data from the American Census Survey was used to test the proposed hypotheses. Unexpectedly, results showed no direct link between county-level demographics and voting behavior. Implications of these findings are discussed.

TABLE OF CONTENTS

| List of Tables | iv |
|---|----|
| List of Figures | |
| Acknowledgements | |
| Chapter 1. INTRODUCTION | 1 |
| Chapter 2. LITERATURE REVIEW | |
| 2.1 Gender and Race | |
| 2.2 Party Affiliation | |
| 2.3 Voter Stereotype | |
| Chapter 3. DEVELOPMENT OF HYPOTHESES | |
| Chapter 4. METHODOLOGY | 9 |
| 4.1 Participants | g |
| 4.2 Measures | 10 |
| 4.2.1 Demographic Variables | 10 |
| 4.2.2 Voter Behavior | |
| 4.3 Procedure | 11 |
| Chapter 5. DATA ANALYSIS AND RESULTS | 12 |
| 5.1 Preliminary analysis | 12 |
| 5.2 Test of Hypothesis | 13 |
| Chapter 6. DISCUSSION | |
| 6.1 Limitation | 19 |
| 6.2 Future Research | 19 |
| 6.3 Theoretical Implication | 20 |
| 6.4 Practical Implications | 21 |
| 6.5 Conclusion. | 21 |
| References | 22 |
| Annandiy A: Data Callaction Quartiannaira | 25 |

LIST OF TABLES

| Table 1 – Descriptive Statistics & Correlation Coefficients | 13 |
|---|------|
| | |
| Table 2 – Regression of GOP on Education, Income, Age & Non-White | 15 |
| Table 3 – Regression of GOP on Education, Income, Age & Female. | . 16 |

LIST OF FIGURES

| Figure 1- Scatter-plot results for percent GOP and percent female | . 17 |
|--|------|
| Figure 2 - Scatter-plot results for percent GOP and percent Non-whites | 17 |

ACKNOWLEDGEMENTS

Throughout the writing of my master's paper, I have received a great deal of support and assistance from friends, family, faculty, and university staff.

I would first like to thank my master's paper course instructor, Dr. Katherine Hamilton, whose expertise was invaluable in formulating the research questions and methodology. Her insightful feedback pushed me to sharpen my thinking and brought my work to a higher level.

I would also like to thank my professor, Dr. Tim Schock, for his valuable guidance throughout my graduate studies. He provided me with the tools that pointed me towards the right direction and successfully complete this paper.

In addition, I would like to thank my parents for their wise counsel and sympathetic ear. They are always there for me. Finally, I could not have completed this dissertation without the support of my friend, Raja Suryadevara, who provided stimulating discussions as well as happy distractions to rest my mind outside of my research.

Introduction

The United States government is a "representative democracy," which means it has delegated action on the part of some, and on behalf of someone else to exercise direct rule (Urbinati, 2011). This means that people who create laws in the community are expected to be representative of its citizens. However, we are still living in a representative democracy that lacks representation of major segments of the society across all branches of government. In 2014, men made up 80 percent of the United States Senate and 81 percent of the House of Representatives (Vinik, 2014). In the Senate, 6 out of 100 senators were minorities with only two being African American and four being Latinx (Vinik, 2014). In congress, over 71 percent of federal officers were male despite being the minority in the population, and only 10 percent of the officers were minorities (Vinik, 2014).

Even though the United States 2018 midterm elections made some progress on making the United States a more representative democracy, the progress has been limited. The United States is constituted of 51 percent women but only 23 percent were a part of the representation in the House of Representatives. Similar trends are noticed with African Americans who constitute 13 percent of the population but represent 9 percent in congress and Latinx who make up roughly 18 percent of the population but represent 6 percent in congress (Medecina, 2020). The concerns about the under-representation of some individuals in government and the over-representation of others is not about having to vote for people who look a certain way or have a certain background. It is about having the voices of a section of society better heard in shaping relevant policies. As Brians (2005) highlights, minorities tend to feel that a candidate who is different in the sense of their upbringing and beliefs can lack empathy towards issues that concerns them.

Previous research on the representative democracy paradox has been mixed. On the one hand, researchers have shown that demographic variables like age, gender, income, and level of education have a significant role in determining the election results or the incline of a certain group of people to a party (e.g., McDermott, 1998). On the other hand, researchers have shown that demographic variables have no effect on how a voter prefers to vote for a candidate in presidential elections (e.g., Ansolabehere & Hersh, 2011). Multiple researchers have also shown that several characteristics determine voters' choice of the candidate. Predictors of voter choice have included income, beliefs a voter is raised with, race, gender, and age (Fridkin & Kenney, 2011; Gebru et al., 2017; McDermott, 1998; Simeonova, 2018).

This research intends to examine candidate preference of a voter by analyzing county-level data that shows voter behavior across two consecutive presidential elections. The years analyzed in this research will provide an insight of how demographic inhabitation could change the outcome of the election or determine how party affiliation can determine a voter's preference for a candidate. Using the data from a swing state like Pennsylvania would also define for a historic roadmap for the future to see if any trends were forming around the in the years 2012 and 2016. These years form an important time in our history as we see an incumbent president of color, President Barak Obama, running against Mitt Romney, an active political figure in the year 2012. Whereas in 2016, president elect Donald Trump, a business tycoon in New York, ran against president elect Hillary Clinton, the first female to ever receive a presidential ticket of a large party, the wife of former president Bill Clinton, and an active contributor in politics. The diversity of race and gender in the presidential election candidates in the year 2012 and 2016 make them well suited for studying the relationship between the voter inhabitation of a particular region and voter choice.

Literature Review

The special theory of voting founded by Downs (Downs, 1957) and Black (Black,1958) and then later extended by Davis, Hinch and Ordershook (Davis et al, 1970), says that from a theoretical standpoint, voter cast their vote to the candidate who is closest to the voter's ideology. The important piece of information is to find out if this ideology is represented by the voter's political views or is it a factor influenced by their assessment of the candidate in light of the candidate's personal traits. According to the theory, voters have a "bliss point" and vote for candidates closest to this bliss point. In order to conclude if the ideology is represented by the political views or influenced by external factors, research found that this conclusion would require data on how voters vote in several elections. The study uses individual level datasets to analyze how voters bliss points help them in making voting decisions. The limitation of this research is that we have assumed the bliss point as a constant and thus the changing nature of a voter in a setting where external factors are influencing the voter. This experiment can lack accuracy because of the inability to collect data on the change of ideology or the voter's bliss point as a starting point (Degan & Merlo, 2009).

Research has shown that cognitive abilities of the voter can be influenced by means of experimental manipulations. Voter's stance of a party or candidate can be changed or altered by the information provided by external factors. The 2008, elections badged unprecedented when an African American president won on a major party ticket especially when long and bitter history of racism in America is not unknown. While the country was amidst war and fear, Obama's campaign has set to bring fear and hope among voters. His prominent memoir in 2006 named the Audacity of Hope spoke volumes with the "Yes we can" campaign to a ferocious and fearful

public. The research was able to point out that even though race is an important demographic cue that voters use in elections to choose their candidate, other factors such as hope, and positive accountability significantly reduces the effect of race as a voter's bias. In cases of explicit biases such as party identification and ideology did not account for any effect on vote choice, but combined they weaken the effect to non-significance. (Finn & Glaser, 2010).

2.1 Gender and Race

The 2008 elections were a great example in demonstrating that just because women do not suffer on the ballot box, because of their sex, we should not assume that voter attitudes about gender are irrelevant to politics. It is to say that while voters might not oppose the idea of a women candidate or a candidate of race, they are simply accustomed to men being officeholders and thus the reluctancy of voting for women or a racially diverse candidate might come from the reservation of the vote to the former which in this case would be White American men (Dolan, 2009). That can also explain why young voters are open to the idea of voting for women or racially diverse candidates than older voters. Young voters who are presumably born in a time where women taking up political roles is accepted as compared to older voters who are devoid of the idea that women can in-fact, successfully take up the office (McDermott, 1998). Gender stereotypes and their relationship with the assumption of the difference in ability of handling political positions by women and men have been well documented by scholars. The political stereotype about women is that they display qualities of compassion, care and more trustworthiness when compared with men. They are good at handling affairs about education, health care, government ethics and helping the poor. Women candidates are believed to be more liberal, thus voters who are more likely to vote conservative would vote for men. By the same logic, voters who are concerned about education facilities, healthcare and government ethics

would be more inclined towards voting for women (McDermott, 1998).

2.2 Partisan Affiliation

Studies suggest that a decline in partisan affiliation has led to the decline in strict partyline voting and has increased the importance of candidate in the elections. As this shift in trend
has made candidates central to the elections their demographic aspects have therefore been a
focus of voter's attention (McDermott, 1998). Thus, even though the party affiliation constitutes
for a significant variable whose effects on voter's candidate preference should be examined, the
shift to candidates becoming central in elections has brought other characteristic heuristics that
can shape voter preference.

Studies conducted previously are also based on surveys as a part of the dataset that is being used for analysis. They use a hypothetical scenario wherein voters are given a list of hypothetical candidates to choose from and they pick the preferred candidate out of the lot (McDermott, 1998, Dolan, 2009, Bracic et al., 2016). This survey questionnaire is designed in a way that it examines biases, if any that persist when a voter is choosing a presidential candidate. As observed the hypothetical situation creates a relatively controlled information setup. This controlled information is set to ensure that the results are as close to determine the objective that is set to be observed. But the lack in realism can in-fact affect how voters respond to the questionnaire. Some questionnaires used as a part of the analysis are telephonic conversations and can infuse a sense of pressure to vote for a candidate that seems more publicly acceptable, the voter then chooses a safe choice rather than a choice inclined with their personal opinions.

The larger picture about who wins the election is defined by the amount of involvement of the voter with the candidates. Democracy requires a citizen to not only be a part in the voting process by showing to the election polls, but its importance lies in the active participation of the

voter in being able to vote for the contestant that would pledge to make the changes in the government that the citizen wishes to see. Researchers have found that the availability of political heuristics, cognitive capacity, nature, and availability of political information environment and lastly the motivation to be part of the process of candidate selection. This is when the concept of correct voting was introduced which says that candidates vote is expected to perform differently in an election in the presence of incomplete or complete information about the candidate and the party. This study analyses data from elections held in between 1972 and 2004 where each variable that the voter uses as heuristic cue was assigned weights between 01 and 1. The goal of this project was not to find out which candidate was the most liked, but alternatively to find out which candidate would be voter's competing alternative. The study has used non-linear multilevel model to analyze the dichotomous variable - correct voting for 5 presidential elections (Lau, Andersen, & Redlawsk, 2008).

Researchers have recorded some key definitions that can account for understanding the complex terms used in this paper voter behavior and demographic cues. These definitions provide us an insight into our topic before we dive into our analysis model and dig in deeper to understand the relevance of this study and unpack the key terms.

2.3 Voter Stereotype

This is a behavior found in voters to choose candidates for office depending on how much they agree or disagree with the candidate ideologically. Generally, the trends find certain behaviors associated with certain categories of people and voters tend to act on those perceived notions and assumptions rather than the knowledge they acquire about the candidate elsewhere. As a voter is also a human, he or she is bound to project an image of the candidate afflicted by these stereotypes (McDermott,1998).

Development of Hypotheses

An election process and the way the voters respond to the candidate elect or the party that the candidate is affiliated with has multiple facets that accounts for voters' consideration. The facets of the election process can feature factors that influence and could incline someone to vote for a particular candidate. Among voters that have partisan affiliations, partisanship strongly influences the voter's candidate preference. It is also observed that partisan voters rationally focus on partisan affiliation over candidate sex (Ono et al., 2019). Researchers have found that voters who have low information about elections compensate this lack of knowledge with candidate cues to make voting decisions. Voters use candidate heuristics such as party identification, retrospection, gender, religious beliefs that act as an approximate enlightenment for the voters to pick their candidates. These demographic heuristics play an influential role in determining voter's choice of candidate (McDermott, 1998). Studies have shown that baseline gender preference affects voter preference and have also examined the difference in gender affinity found in female voters and male voters afflicted by in-group favoritism. They have also suggested that these cues have been used interchangeably in the absence of the other cue and thus the effects can differ when one cue is available, and another cue is unavailable. The 2012 elections were a great representation of presence of diversity in president elect candidature while the 2016 election record a presence of gender diversity by Hilary Clinton's president elect Democratic party ticket.

The current study plans to use empirical data to analyze the relationship between a voter and a candidate and examine how demographic variables such as gender and race correlate with people's candidate preference in the 2012 and 2016 presidential election.

Over the years researchers have analyzed that several demographic variables define the direction in which the voter votes. Mixed research on this topic has shown that demographic variables play a vital role in the voter's candidate choice (McDermott, 1998). Whereas others have shown that demographic variables do not play a significant role in voters' choice for the candidate (Ansolabehere & Hersh, 2011).

The predictors chosen for this study are gender, income, age, education, and race. These predictors will be used to study voters candidate choice in two presidential elections. The idea behind using the years 2012 and 2016 is the racial and gender diversity of the President elect noticed in the years. Due to underrepresentation of certain groups in the congress and overrepresentation of White men in the congress, we decided to narrow down the opposites of "white-men" which brought us to two categories of people racially diverse or non-white and women or non-men (Kathleen,2010; Ono et al, 2019). Based on these trends in previous research, the current study will evaluate the following hypothesis:

Hypothesis 1. Race will have an impact on candidate choice, such that Non-White voters will be less likely to vote for the GOP as opposed to White voters.

Hypothesis 2. Race will have a stronger effect on candidate choice in the 2012 election than in the 2016 election.

Hypothesis 3. Gender will have an impact on candidate choice, such that women will be less likely to vote for the GOP as opposed to men.

Hypothesis 4. Gender will have a stronger effect on candidate choice in the 2012 election than in the 2016 election.

Methodology

The data for this project has been extracted from the American community Survey conducted by the Census Bureau. The ACS is a household survey that collects throughout the year using mailed questionaries, telephone interviews and visits (see Appendix A for a sample of this survey). The sample which we are using in the study consists of the voters in the state of Pennsylvania. This data has been segregated by counties which in the case of Pennsylvania totals to about 67. We had a collection of about 77 variables to choose that had information about income, occupation, household type, gender, race, languages spoken and much more. The state of Pennsylvania is regarded as one of the 10 swing states among the 51 states in the United States. Swing states form an important part of the presidential elections conducted in the Unites States of America because of the reliance of the election results majorly on the 10 states and almost negligible reliance on the rest 51 states. For the most part it is believed that the results in the 41 states in the United States is already known and if voters were to sit at home and not turn up on the election day, it wouldn't make a difference in determining which candidate would become the President of the United States (Beachler et at.,2015).

4.1 Participants

For this dataset we are analyzing two consecutive presidential elections in the state of Pennsylvania, across the years of 2012 and the 2016. The year of 2012 has an incumbent president Barack Obama who has 4 years of serving in politics, a high approval rating and the advantage of being an incumbent president (Fridkin & Kenney, 2011). On the other hand, we have Mitt Romney, former governor Massachusetts, having previously run for presidency primaries in the 2008 elections, a family background in politics and a follower of Mormonism.

The candidacy of the year 2012 has the importance of racial diversity, strong holders of religious beliefs on the Republican side, incumbency, and family political background.

On the other hand, in 2016 Donald Trump was a real-estate developer turned into a television star, a businessman with no government experience. He was running against Hillary Clinton, who was a former United States senator, former First Lady of the United states, served in the first term of Obama administration, and was the first woman to secure a backing of a major American Political party. The candidacy of the year 2016 has the important aspects of gender diversity, in which a woman with years of political experience was running against a businessman with no former political experience.

4.2 Measures

4.2.1 Demographic Variables

Form an important part of the election results study as voters react differently to different elections depending on the choice of candidate provided to them. These choices and preferences change over time, with an influence from external factors. These external factors could be contributions of social media, traditional television which allows candidates to use this as a platform to interact with the public on issues that concern the candidates. This platform helps the voter decide by choosing to see and respond to what they like by casting their vote in favor of the candidate that they feel can represent them. This is the reason why people of a particular occupation, class, race, or agenda are more attracted to a particular candidate. Some of these demographic cues have been gender, age, income of voter, belief of voter, party affiliation of the voter, the city the voter lives in, the surrounding the voter is born into and all these forms a part of demographic cues that the voters pick in order help them vote (Duggan, & Martinelli, 2011, Keeter, 1987).

4.2.2 Voter Behavior

Can depend on the availability of these cues and the effect of the cues on voters is different in varied election setting and people as they are used intensively in cases where people lack knowledge and interests in political issues and in some cases, these might not even be the voter's opinion but influence of the media or representation of candidate in a certain light. All these characteristics would shape how a voter who is a human would respond to the elections and his preference for the candidate. After considering the availability of the data, the variables that are prominent in most studies and filtering the characteristics that can be measured with accuracy we have compounded our predictors as gender, race, education, and income. Our model uses education and race as a moderator and analysis trends that were observed in the years if 2012 and 2016 of the Presidential elections.

4.3 Procedure

The dataset used encompasses predictors that will be used in the model to find out the significance of each predictor. Several past researchers have contributed towards understanding the variables that would have resulted in shaping a voter's candidate preference. We will be analyzing those predictors in the year 2012 and later in the year 2016 to see how these predictors have changed the way that voters select a candidate. The data has been extracted from the American census survey. The ACS conducts surveys on voter demographics every 5 years. As we are using the years of 2012 and 2016 elections, we decided to use the data on voter demographics from two years ago. So, for the year 2012 we have used the survey conducted in the year 2010 and for the election year 2016 we decided to use the survey collected in the year 2014. The comparison would help us understand and draw similarities and changes if any that occurred during this period.

Data Analysis and Results

All the tests were tested using moderated multiple regression (MMR). The data of the election years of 2012 and 2016 were stacked vertically, with Time 1 being representative of 2012 Presidential elections and Time 2 being representative of Presidential elections of 2016. MMR is a hierarchical regression analysis that predicts how variables are interacting with the outcome. This method requires us to add predictors at different stages. As we established earlier our two Presidential elections form an interesting set of analysis for different variables observed. The 2012 elections form an integral part in observing the race diversity variable whereas the 2016 analysis play a major role in gender diversity as aspect. We used the model twice to incorporate gender and race as the major predictor separately to observe the changes in the models. Our analysis was conducted with the controls being entered first, the main effects being entered second, timeframe third and our dependent variable in the last stage.

5.1 Preliminary Analyses

Table 1 represents mean, standard deviation and correlations among controls, moderator, independent and dependent variables. The correlations among these key variables showed that education was negatively correlated with income, non-white, and female, positively correlated with GOP, and uncorrelated with timeframe. The directions of these correlations show that counties with higher levels of education were associated with lower levels of income, were more likely to have a lower percent of non-white residents, had a lower percent of female residents, and were more likely to vote GOP. The dependent variable, GOP, was also positively correlated with timeframe (which was expected because the GOP won the election captured in Time 2) and was negatively correlated with income, non-white, and female. The moderator timeframe was

not significantly correlated with the controls or with any of the controls or the independent variables, suggesting that the composition of the counties did not change much across the two time points examined in the study.

TABLE 1. Descriptive Statistics and Correlation Coefficients.

| Variables | M | SD | 1 | 2 | 3 | 4 | 5 |
|--------------|------|------|---------|---------|---------|---------|--------|
| 1. Education | 0.40 | 0.10 | | | | | |
| 2. Income | 73.7 | 4.60 | -0.69** | | | | |
| 3. Non-White | 0.10 | 0.10 | -0.61** | 0.29** | | | |
| 4. Female | 0.50 | 0.00 | -0.26** | 0.42** | -0.03 | | |
| 5. Timeframe | 1.50 | 0.50 | -0.06 | -0.16 | 0.03 | -0.06 | |
| 6. GOP | 0.60 | 0.10 | 0.73** | -0.42** | -0.76** | -0.25** | 0.23** |

Note. ** p < 0.01 (2-tailed); N=134; All values except for Income and Timeframe represent county-level percentages expressed as decimals. Timeframe was coded as 1 = 2012 and 2 = 2016. Income was measured in thousands.

5.2 Test of Hypotheses

All hypotheses were tested using moderated multiple regression (MMR). The data of the election years of 2012 and 2016 were stacked vertically, with Time 1 being representative of 2012 Presidential elections and Time 2 being representative of Presidential elections of 2016. MMR is a hierarchical regression analysis that predicts how variables are interacting with the outcome. This method requires us to add predictors at different stages. As we established earlier our two Presidential elections form an interesting set of analysis for different variables observed. The 2012 elections form an integral part in observing the race diversity variable whereas the 2016 analysis play a major role in gender diversity as aspect. We used the model twice to incorporate gender and race as the major predictor separately to observe the changes in the models. Our analysis was conducted with the controls being entered first, the main effects being

entered second, timeframe third and our dependent variable in the last stage.

Hypothesis 1 stated that race would have an impact on candidate choice, such that Non-White voters would be less likely to vote for the GOP as opposed to White voters. Similarly, Hypothesis 2 stated that race would have a stronger effect on candidate choice in the 2012 election than in the 2016 election. The results from these hypotheses are shown in Table 2. These results show that the control variables in Step 1 explained a high amount of variance in people voting for Republican party or GOP (R^2 = 0.61, p < 0.01). Education, income, and median age were all significantly related to voting for the GOP party with (β = 0.802, 0327 and 0.325, p < 0.10) respectively. The addition to the main effects at Step 2 explained a little increment in variance at GOP (ΔR^2 =0.085, p < 0.01). However, an examination of the regression coefficients indicated that Non-White was not associated with voting for the Republican party (β = - 0.428, p > 0.10). Results also showed that timeframe did not moderate this effect (β = 0.294, p > 0.10). The consistency of this effect across the two election periods is also shown in Figure 1.

TABLE 2. Regression of Grand Old Party on Education, Income, Age and Non-Whites.

| Variable | R^2 | F | ΔR^2 | В | SE | β |
|-------------|-------|--------|--------------|--------|-------|--------|
| Step 1 | 0.61 | 67.825 | | | | |
| Education | | | | 1.399 | 0.133 | 0.802 |
| Income | | | | 0.855 | 0.217 | 0.327 |
| Median -Age | | | | 1.271 | 0.264 | 0.325 |
| Step 2 | 0.695 | 73.504 | 0.085 | | | |
| Education | | | | 0.845 | 0.15 | 0.485 |
| Income | | | | 0.321 | 0.212 | 0.123 |
| Median -Age | | | | 0.535 | 0.264 | 0.137 |
| Non-White | | | | -0.455 | 0.076 | -0.428 |
| Step 3 | 0.773 | 87.246 | 0.078 | | | |
| Education | | | | 1.035 | 0.133 | 0.594 |
| Income | | | | 0.56 | 0.187 | 0.214 |
| Median -Age | | | | 0.353 | 0.231 | 0.09 |
| Non-White | | | | -0.444 | 0.066 | -0.419 |
| Timeframe | | | | 7.017 | 1.057 | 0.294 |

Note. N = 134, Time - Frame is coded as 1 = 2012 elections and 2 = 2016 elections

Hypothesis 3 stated that gender would have an impact on candidate choice, such that women would be less likely to vote for the GOP as opposed to men. Similarly, Hypothesis 4 stated that gender would have a stronger effect on candidate choice in the 2012 election than in the 2016 election. These results are presented in Table 3. They show that the control variables in Step 1 explained a high amount of variance in people voting for Republican party or GOP ($R^2 = 0.61$, p < 0.01). Education, income, and median age were all significantly related to voting for the GOP party with ($\beta = 0.807$, 0327 and 0.325, p < 0.10) respectively. The addition to the main effects at Step 2 explained a little increment in variance at GOP ($\Delta R^2 = 0.035$, p < 0.01). However, an examination of the regression coefficients indicated that Female was not

significantly associated with voting for the Republican party (β = -1.214, p > 0.10). Results also showed that timeframe did not moderate this effect (β = 0.297, p > 0.10). The consistency of this effect across the two election periods is also shown in Figure 2. Therefore, neither Hypothesis 3 nor Hypothesis 4 were supported.

TABLE 3. Regression of Grand Old Party on Education, Income, Age and Females.

| Variable | R^2 | F | ΔR^2 | В | SE | β |
|-------------|-------|--------|--------------|--------|-------|--------|
| Step 1 | 0.61 | 67.825 | | | | |
| Education | | | | 1.399 | 0.133 | 0.802 |
| Income | | | | 0.855 | 0.217 | 0.327 |
| Median -Age | | | | 1.271 | 0.264 | 0.325 |
| Step 2 | 0.645 | 58.588 | 0.035 | | | |
| Education | | | 0.000 | 1.407 | 0.127 | 0.807 |
| Income | | | | 1.198 | 0.229 | 0.458 |
| Median -Age | | | | 1.521 | 0.262 | 0.389 |
| Female | | | | -1.011 | 0.284 | -0.214 |
| Step 3 | 0.724 | 67.295 | 0.079 | | | |
| Education | | | | 1.586 | 0.116 | 0.909 |
| Income | | | | 1.415 | 0.206 | 0.541 |
| Median -Age | | | | 1.313 | 0.235 | 0.335 |
| Female | | | | -0.975 | 0.251 | -0.207 |
| Timeframe | | | | 7.077 | 1.165 | 0.297 |

Note. N = 134, Timeframe was coded as 1 = 2012 elections and 2 = 2016 elections

Figure 1. Scatter-plot results for percent GOP and percent female

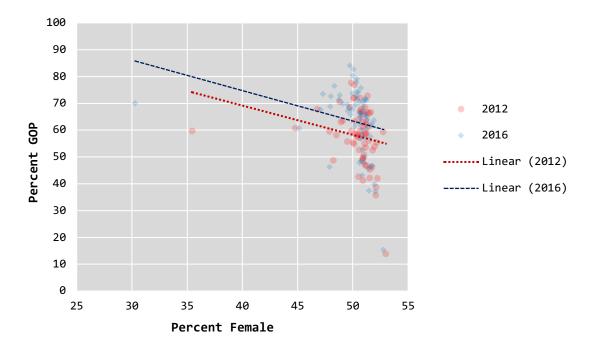
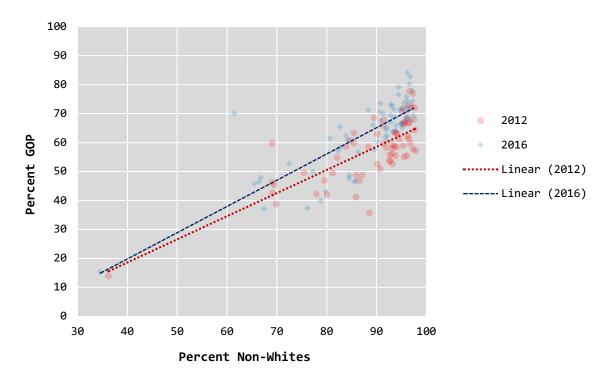


Figure 2. Scatter-plot results for percent GOP and percent Non-whites



Discussion

This research study has been able to filter out the most prominent demographic variables that influence voter's candidate preference with the help of past researchers' studies. A threat to internal validity is the assumption that the ACS surveys the people at an interval of 5 years, and it does now align with the election years and thus we have used a voter's demographics of 2 years prior to the election year being investigated here. Voter stereotype is another aspect that is set to affect human decision making to limit that, we have used voter heuristics into account for the convenience of corroborating the stereotype in the analysis to represent in the form of voter demographic variables.

The result from this research is consistent with the existing literature that claims that demographic variables such as gender and race do not have any correlation with election results (e.g., McDermott, 1998) (Ansolabehere & Hersh, 2011). Up until this point, most of these claims have been anecdotal. This paper, with the use of Pennsylvania election data for two consecutive and demographically critical in the light of race and gender helps to provide empirical evidence to evaluate these claims.

Even though previous research has shown a relationship between demographic variables and voter preference, there has been a lack of empirical analysis to look at how these variables combined can impact the voters preference. The significance of a single cue can differ when analyzed individually not accounting for how other cues might be playing a role in the voter's preference for the candidate. In some cases, the demographic cue which is believed to have a greater impact can in-fact show a lesser significance when compared with other demographic cues in the same model. This can also be true when comparing cues in a particular state, or a

country. The factors that might be affecting the elections on a countrywide level might not be the causation variable in how a state has voted.

6.1 Limitations

Results from the moderated regression analysis show how gender and race play in important part in the elections. The two years being analyzed for the state of Pennsylvania had an outcome of the Republic party win in the year 2012 followed by the Republican party win in year 2016. These findings play an important role in corroborating the current literature that demographic cues play an important role in the voter preference of the candidate simultaneously provides empirical data to back up the claim. The fact that the model uses some of the more prominent demographic cues motioned in previous literature, it does not incorporate any external factors especially with the use of social media and traditional media has shaped the influence of affect the light in which politicians are being represented.

In our research analysis we have decided to examine the state of Pennsylvania due to its significant role as a swings state in the United States presidential elections. But because of this dataset only being of the voters in Pennsylvania, we cannot use it to generalize it for a trend that can be found in the world or the United States. Most parts of the trends observed can account for a lot of behaviors seen in all states of the United States, but it should not be used interchangeably to account for something happening in another part of the world where the dynamics are totally opposite compared to that of the state of Pennsylvania.

6.2 Future Research

Voter behavior with relations to election results has several variables that could affect the way a voter thinks or behaves in an election setting. Social media has huge significance on how a voter perceives their candidate. Similarly, studies have found that the effects of an incumbent

president in the candidacy serves in favor of that candidate. Thus, apart from the predictors that we are using in this dataset we have reason to believe that there are other external environments which also shapes how the voters develop a stance on which candidate to pick. Our lack of information on how the other factors are affecting the results would then also affect our understanding, which would be compounding the results to only the variables we are using and not the ones which we will not use and would still be making an impact.

The future of voter behavior and response to presidential candidates has been very been an interesting topic to explore. Now that we have investigated the demographic part of the election process. It would be interesting to see how voters respond to perceptions and beliefs. The data can be collected on perceptual measures on how the voter investigates the candidate and casts his vote. This data can be design in the form of a questionnaire to understand the voter's mindset behind his choice and not just the choice itself. This study could then identify the demographic variables that we should be looking at on the candidate's side to understand voter preference.

6.3 Theoretical Implications

The research analysis is useful in providing empirical analysis to support the literature written on how demographic cues of the voter have especially gender and race have no correlation with how the voter votes in a presidential election. Mixed research exists on this theory and there has been a lack of empirical analysis in this field. Using the state of Pennsylvania, being a swing state forms as an important event to track changes and patterns forming around these two presidential elections.

6.4 Practical Implications

The study has been based on the data collected by the ACS and forms s strong foundation for future research to be conducted. The study finds interesting patterns that can be of a lot of interests to understand how people in Pennsylvania are voting. Further research on the variables that have been seen as correlated can from a deeper dive into the patterns in the election years. This data can also eb useful to understand the target audience for campaigners, to be able to be more approachable and convincing in their rallies.

6.5 Conclusion

The analysis of voter behavior is a complex process. It has multiple variables that can be in-fact affecting how are our voter responds to information. This study only uses two major demographic cues gender and race to check voter stereotype or gender affinity. The debate on how the relationship of the voter's performance on the ballot if affected by their pre-dominant beliefs is still ongoing. With the intervention of social media serving as a new platform for individuals to interact with their leaders and their leaders having a chance to corroborate their standpoint has become a powerful tool responsible for influencing. We were able to use moderative analysis to illustrate the role of gender and race in the presidential elections. This research can help future researchers a foundation to base their hypothesis on, and corroborates studies done to prove the theory.

REFERENCES

- Ansolabehere, S., & Hersh, E. (2011, August 01). Gender, Race, Age, and Voting: A Research

 Note. Retrieved February 01, 2021, from

 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1901654
- Beachler, D. W., Bergbower, M. L., Cooper, C., Damore, D. F., Van Dooren, B., Foreman, S. D., & Weinschenk, A. C. (2015). *Presidential Swing States: Why Only Ten Matter*. Lexington Books.
- Bracic, A., Israel-Trummel, M. & Shortle, A.F. (2019). Is Sexism for White People? Gender Stereotypes, Race, and the 2016 Presidential Election. *Political Behavior*, 41, 281–307. https://doi.org/10.1007/s11109-018-9446-8
- Brians, C. L. (2005). Women for Women?: Gender and Party Bias in Voting for Female Candidates. *American Politics Research*, *33*(3), 357–375.
- Black, D. (1958). The theory of committees and elections. Cambridge: University Press.
- Degan, A., & Merlo, A. (2009). Do voters vote ideologically? *Journal of Economic Theory*, 144(5), 1868-1894. doi:10.1016/j.jet.2008.10.008
- Dolan, K. (2009). The impact of gender stereotyped evaluations on support for women candidates. *Political Behavior*, 32(1), 69-88. doi:10.1007/s11109-009-9090-4
- Downs, A. (1957). An Economic Theory of Political Action in a Democracy. *Journal of Political Economy*, 65(2), 135-150. Retrieved April 8, 2021, from http://www.jstor.org/stable/1827369
- Davis, O., Hinich, M., & Ordeshook, P. (1970). An Expository Development of a Mathematical Model of the Electoral Process. *American Political Science Review*, 64(2), 426-448. doi:10.2307/1953842
- Duggan, J., & Martinelli, C. (2011). A Spatial Theory of Media Slant and Voter Choice. The Review

- of Economic Studies, 78(2), 640-666. Retrieved April 18, 2021, from http://www.jstor.org/stable/23015869
- Finn, C., & Glaser, J. (2010). Voter affect and the 2008 U.S. presidential ELECTION: Hope and race mattered. *Analyses of Social Issues and Public Policy*, 10(1), 262-275. doi:10.1111/j.1530-2415.2010.01206.x
- Gebru, T., Krause, J., Wang, Y., Chen, D., Deng, J., Aiden, E., & Fei-Fei, L. (2017, December 12). Using deep learning and Google Street View to estimate the demographic makeup of neighborhoods across the United States. Retrieved February 01, 2021, from https://doi.org/10.1073/pnas.1700035114
- Hawkesworth, M. (2003). Congressional Enactments of Race-Gender: Toward a Theory of Raced-Gendered Institutions. *The American Political Science Review*, 97(4), 529-550. Retrieved February 8, 2021, from http://www.jstor.org/stable/3593022
- Keeter, S. (1987). The Illusion of Intimacy Television and the Role of Candidate Personal Qualities in Voter Choice. *The Public Opinion Quarterly*, *51*(3), 344-358. Retrieved April 18, 2021, from http://www.jstor.org/stable/2748738
- Medenica, V. E., & Fowler, M. (2020). The Intersectional Effects of Diverse Elections on Validated Turnout in the 2018 Midterm Elections. *Political Research Quarterly*, 73(4), 988–1003. https://doi.org/10.1177/1065912920945781
- McDermott, M. (1998). Race and Gender Cues in Low-Information Elections. *Political Research Quarterly*, *51*(4), 895-918. doi:10.2307/449110
- Ono, Y., Burden, B.C. (2019). The Contingent Effects of Candidate Sex on Voter

 Choice. *Political Behavior*, 41, 583–607. https://doi.org/10.1007/s11109-018-9464-6

- Representation2020.com. (n.d.). Women's representation. Retrieved March 05, 2021, from https://www.representwomen.org/current-women-representation#us_overview
- Simeonova, E. (2018, July 20). This is the link between voting in elections and income.

 Retrieved February 08, 2021, from https://www.weforum.org/agenda/2018/07/low-voter-turnout-increasing-household-income-may-help
- The Future of Representative Democracy. (2011). (n.p.): Cambridge University Press.

 https://www.google.com/books/edition/The_Future_of_Representative_Democracy/9iWx

 eJ9knnwC?hl=en&gbpv=0
- Urbinati, N. (2011). Representative democracy and its critics. *The Future of Representative Democracy*, 23-49. doi:10.1017/cbo9780511770883.002
- Vinik, D. (2014, October 08). Report: Every Level of Government Is Suffering From a Serious

 Woman Problem. Retrieved January 31, 2021, from

 https://newrepublic.com/article/119737/report-women-minorities-underrepresented-all-levels-government

APPENDIX A

Data Collection Questionnaire

| 1. What is Person 2's sex? |
|---|
| MaleFemale |
| 2.Is Person 1 of Hispanic, Latino, or Spanish origin? |
| No, not of Hispanic, Latino, or Spanish origin Yes, Mexican, Mexican Am., Chicano Yes, Puerto Rican Yes, Cuban Yes, another Hispanic, Latino, or Spanish origin – Print, for example, Salvadoran, Dominican, Co |
| 3. What is Person 3's age and what is Person 3's date of birth? For babies less than 1 year old, d not write the age in months. Write 0 as the age. Print numbers in boxes. |
| Age (in years) Month Day Year of birth What is Person 3's race? one or more boxes AND print origins. |
| White – Print, for example, German, Irish, English, Italian, Lebanese, Egyptian, etc. |
| Black or African Am. – Print, for example, African American, Jamaican, Haitian, Nigerian, Ethiopian, Somali, etc. |
| American Indian or Alaska Native – Print name of enrolled or principal tribe(s), for example, Navajo Nation, Blackfeet Tribe, Mayan, Aztec, Native Village of Barrow Inupiat Traditional Government, Nome Eskimo Community, etc. |
| Chinese Filipino Asian Indian Other Asian – Print, for example, Pakistani, Cambodian, Hmong etc. |

| Vietnamese Korean Japanese Native Hawaiian Samoan Chamorro Other Pacifc Islander – Print, for example, Tongan, Fijian, Marshallese, etc. Some other race – Print race or origin. |
|---|
| 4. What is the highest degree or level of school this person has COMPLETED? Mark (X) ONE box. If currently enrolled, mark the previous grade or highest degree received. |
| NO SCHOOLING COMPLETED |
| No schooling completed |
| NURSERY OR PRESCHOOL THROUGH GRADE 12 |
| Nursery school |
| Kindergarten |
| ○ Grade 1 through 11 – Specify grade 1 – 11 |
| |
| 12.1 1 NO DVD OVA |
| o 12th grade – NO DIPLOMA |
| HIGH SCHOOL GRADUATE |
| Regular high school diploma |
| o GED or alternative credential |
| COLLEGE OR SOME COLLEGE |
| Some college credit, but less than 1 year of college credit |
| 1 or more years of college credit, no degree |
| Associate's degree (for example: AA, AS) |
| o Bachelor's degree (for example: BA, BS) |
| AFTER BACHELOR'S DEGREE |
| Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA) |
| Professional degree beyond a bachelor's degree (for example: MD, DDS, DVM, LLB, |
| JD) Doctorate degree (for example: PhD, EdD) |
| |
| 5. Wages, salary, commissions, bonuses, or tips from all jobs. Report amount before deductions for taxes, bonds, dues, or other items. |
| o Yes |
| TOTAL AMOUNT for past 12 months |
| o No |
| |
| |